

**Listing of Claims:**

Please amend the claims as follows. This Listing of Claims will replace all prior versions and listings of claims in the application.

**CLAIMS**

1. – 73. (Canceled).

74. (Currently Amended) An electroluminescent device which comprises:

- (i) a first electrode which functions as an anode;
- (ii) a second electrode which functions as a cathode; and,
- (iii) between said first and second electrodes, the following layers (a) to (e) in sequence:
  - (a) a layer of a hole transport material;
  - (b) a first layer comprising a first electroluminescent metal complex or a first electroluminescent organometallic complex having a band gap;
  - (c) a layer comprising a second electroluminescent metal complex or a second electroluminescent organometallic complex having a band gap, wherein the band gap of the second electroluminescent metal complex or second organometallic complex is larger than that of the first electroluminescent metal complex or first organometallic complex and wherein the highest occupied molecular orbital (HOMO) of the second complex is higher, and the lowest occupied molecular orbital (LOMO) of the

second complex is lower, than those of the first complex, and wherein the layer of second complex has a thickness of about 10 nm or less;

- (d) a second layer comprising the first ~~electroluminescent metal complex or the first organometallic complex~~; and,
- (e) a layer of an electron transport material, ~~not containing a rare earth element.~~

75. (Canceled)

76. (Currently Amended) The device of claim ~~75~~ 74, wherein the first electrode/anode is an ITO layer.

77. (Currently Amended) The device of claim ~~75~~ 74, wherein the hole transport material comprises N,N'-diphenyl-N,N'-bis-(3-methylphenyl)-1,1'-biphenyl-4,4'-diamine (TPD), HTM-1, TPTE,  $\alpha$ -NBP  $\alpha$ -NPB or mTADATA.

78. (Currently Amended) The device of claim 74, wherein the first electroluminescent metal complex or first electroluminescent organometallic complex emits light in the red, green or yellow regions of the spectrum.

79. (Currently Amended) The device of claim ~~78~~ 74, wherein the first electroluminescent metal complex or first electroluminescent organometallic complex is a complex including Eu, Tb or Dy.

80. (Currently Amended) The device of claim 74, wherein the first electroluminescent complex or first electroluminescent organometallic complex is Eu(TMHD)<sub>3</sub>OPNP or Eu(DBM)<sub>3</sub>OPNP.

81. (Currently Amended) The device of claim 74, wherein the second electroluminescent metal complex or second electroluminescent organometallic complex emits light predominantly in the ultraviolet region of the spectrum.

82. (Currently Amended) The device of claim 74, wherein the second electroluminescent metal complex or second electroluminescent organometallic complex is a complex including Gd or Ce.

83. (Currently Amended) The device of claim 74, wherein the second electroluminescent metal complex or second electroluminescent organometallic complex is Gd(DBM)<sub>3</sub>Phen.

84. (Canceled)

85. (Previously Presented) The device of claim 74, wherein said second electrode comprises a material selected from aluminum, calcium, lithium, and silver/magnesium alloys.

86. (Previously Presented) The device of claim 74, wherein the electron transport layer comprises a metal quinolate.

87. (Currently Amended) The device of claim 86 74, wherein the metal quinolate electron transport material layer comprises aluminum or lithium quinolate.

88. (Currently Amended) An electroluminescent device which comprises:

- (i) a first electrode which functions as an anode;
- (ii) a second electrode which functions as a cathode; and,
- (iii) between said first and second electrodes, the following layers (a) to (c)  
in sequence:
  - (a) a layer of a hole transport material;
  - (b) at least one a composite electroluminescent layer comprising in sequence alternating sub-layers of a first electroluminescent metal complex or first organometallic complex having a band gap alternating with at least one layer comprising and a second electroluminescent metal complex or second organometallic complex having a band gap, the composite layer including at least two sub-layers of the second complex and at least three sub-layers of the first complex, wherein the band gap of the second metal complex or second organometallic complex is larger than that of the first metal complex or first organometallic complex and wherein the highest occupied molecular orbital (HOMO) of the second complex is higher, and the lowest occupied molecular orbital (LOMO) of the second complex is lower, than those of the first

complex, and wherein each layer of the second complex has a thickness of about 10 nm or less; and,

(c) a layer of an electron transport material, ~~not containing a rare earth element.~~

89. (Currently Amended) The device of claim 88, wherein each of the sub-layers of first or second complex located between the first and the last sub-layers of the first said layer(s) containing said second electroluminescent metal complex or second organometallic complex have ~~has~~ a thickness of about 10 nm.

90. (Currently Amended) The device of claim 88, wherein the second electroluminescent metal complex or second electroluminescent organometallic complex emits light ~~predominantly~~ in the ultraviolet region of the spectrum.

91. (New) An electroluminescent device which comprises:

- (i) a first electrode which functions as an anode;
- (ii) a second electrode which functions as a cathode; and,
- (iii) between said first and second electrodes, the following layers (a) to (g) in sequence:
  - (a) a layer of a hole transport material;
  - (b) a first layer comprising a first electroluminescent metal complex or a first electroluminescent organometallic complex having a band gap, such first layer having a thickness of about 23 nm;

- (c) a layer comprising a second electroluminescent metal complex or a second electroluminescent organometallic complex having a band gap, wherein the band gap of the second complex is larger than that of the first complex, and wherein the highest occupied molecular orbital (HOMO) of the second complex is higher, and the lowest occupied molecular orbital (LOMO) of the second complex is lower, than those of the first complex, and wherein this layer has a thickness of about 10 nm;
- (d) a second layer comprising the first complex, this layer having a thickness of about 10 nm;
- (e) a second layer comprising the second complex, this layer having a thickness of about 10 nm;
- (f) a third layer comprising the first complex, this layer having a thickness of about 23 nm, and,
- (g) a layer of an electron transport material.

92. (New) The device of claim 91, wherein the first electrode/anode is an ITO layer.

93. (New) The device of claim 91, wherein the hole transport material comprises N,N'-diphenyl-N,N'-bis-(3-methylphenyl)-1,1'-biphenyl-4,4'-diamine (TPD), HTM-1, TPTE,  $\alpha$ -NPB or mTADATA.

94. (New) The device of claim 91, wherein the first electroluminescent metal complex or first electroluminescent organometallic complex emits light in the red, green or yellow regions of the spectrum.

95. (New) The device of claim 91, wherein the first electroluminescent metal complex or first electroluminescent organometallic complex is a complex including Eu, Tb or Dy.

96. (New) The device of claim 91, wherein the first electroluminescent complex or first electroluminescent organometallic complex is Eu(TMHD)<sub>3</sub>OPNP or Eu(DBM)<sub>3</sub>OPNP.

97. (New) The device of claim 91, wherein the second electroluminescent metal complex or second electroluminescent organometallic complex emits light in the ultraviolet region of the spectrum.

98. (New) The device of claim 91, wherein the second electroluminescent metal complex or second electroluminescent organometallic complex is a complex including Gd or Ce.

99. (New) The device of claim 91, wherein the second electroluminescent metal complex or second electroluminescent organometallic complex is Gd(DBM)<sub>3</sub>Phen.

100. (New) The device of claim 91, wherein said second electrode comprises a material selected from aluminum, calcium, lithium, and silver/magnesium alloys.

101. (New) The device of claim 91, wherein the electron transport layer comprises a metal quinolate.

102. (New) The device of claim 91, wherein the electron transport material layer comprises aluminum or lithium quinolate.

103. (New) An electroluminescent device which comprises:  
(i) a first electrode which functions as an anode;  
(ii) a second electrode which functions as a cathode; and,  
(iii) between said first and second electrodes, the following layers (a) to (e) in sequence:

- (a) a layer of a hole transport material;
- (b) a first layer comprising a first electroluminescent metal complex or a first electroluminescent organometallic complex having a band gap;
- (c) a layer comprising a second electroluminescent metal complex or a second electroluminescent organometallic complex having a band gap, wherein the band gap of the second complex is larger than that of the first complex and wherein the highest occupied molecular orbital (HOMO) of the second complex is higher, and the lowest occupied molecular orbital (LOMO)

of the second complex is lower, than those of the first complex, and wherein  
the layer of second complex has a thickness of about 10 nm or less;

- (d) a second layer comprising the first complex; and,
- (e) a layer of an electron transport material; and,

further wherein the second electroluminescent metal complex or second  
electroluminescent organometallic complex is Gd(DBM)<sub>3</sub>Phen.